DRAFT

NWA 2800

Basalt

686 grams

Introduction

Bunch et al. (2008) announced another large basaltic rock from Mars – NWA2800 – that appears to be similar to the Los Angeles specimens. It has a coarse ophitic texture with preferred orientation of intergrown elongate grains of plagioclase and pyroxene. It is apparently *"complete and lightly weathered with significant desert ablation"*.

Petrography

NWA2800 is very coarse-grained with ophitic to subophic texture with oriented elongated crystals and patches of what was apparently pyroxferroite (now converted to a symplectic intergrowth). Plagioclase (now shocked to maskelynite) and pyroxene crystals are up to 6-7 mm long. Pyroxene is chemically highly zoned (figure 1).

Interstitial patches of late-stage residuum are adjacent to patches of symplectite (presumed breakdown of pyroxferroite). The late-stage minerals include silica-plagioclase graphic intergrowths, fayalite and K-spar while the complex sympletite intrgrowths include fayalite, pyroxene, silica with minor phosphates, opaques, sulfides and silica glass.

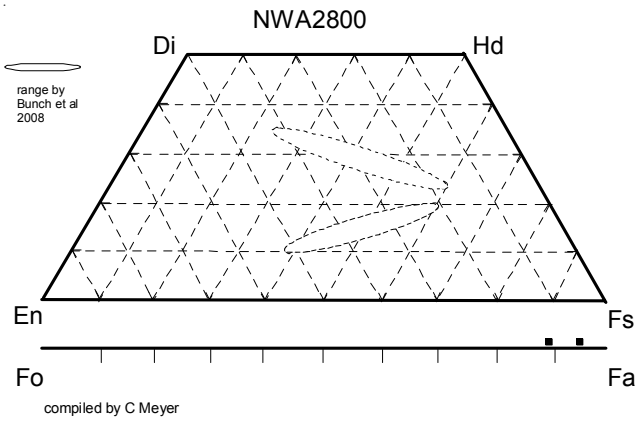

Figure 1: Olivine and pyroxene composition in NWA 2800 (sketched from data given in Bunch et al. (2008).

Mineralogical Mode for NWA2800

Plagioclase	47 vol. %
Pyroxene	39
Symplectite	10
Residuum	2
Oxides	2

References for NWA2800

Bunch T.E., Irving A.J., Wittke J.H. and Kuehner S.M. (2008) Highly evolved basaltic shergottite Northwest Africa 2800: A clone of Los Angeles (abs#1953). *Lunar Planet. Sci.* **XXXIX**. Lunar Planetary Institute, Houston. (CD-ROM)